

## WHAT IS CLAIMED IS:

1. An electronic settlement system to settle a transaction using a telecommunication network, comprising:

a settlement apparatus which performs said settlement of the transaction;

a billing terminal connecting to said settlement apparatus via said telecommunication network for performing billing of said transaction; and

a paying terminal, connecting to said settlement apparatus via said telecommunication network for performing paying of said transaction, wherein:

03  
said settlement apparatus performs said settlement of transaction by synchronizing a communication to said billing terminal with a communication to said paying terminal when said settlement apparatus sets up a transaction identifying number which identifies said transaction and when said paying terminal transmits to said settlement apparatus the same transaction identifying number as said transaction identifying number.

2. An electronic settlement system as claimed in claim 1, wherein said billing terminal connects to said settlement apparatus via a commercial telephone line or a private line, and said paying terminal connects to said settlement apparatus via a radio telephone communication.

3. A settlement apparatus performing a settlement of a transaction, which communicates to a billing terminal performing billing of said transaction with to a paying terminal performing paying of said transaction, the apparatus comprising:

a first communication unit connecting to said billing terminal via a first telecommunication network;

a second communication unit connecting to said paying terminal via second telecommunication network; and

a processing unit for processing said settlement of transaction, said processing unit synchronizing a communication to said billing terminal with a communication to said paying terminal when said processing unit sets a transaction identifying number to identify said transaction, and when said paying terminal transmits to the settlement apparatus a transaction identifying number which is the same as said transaction identifying number.

4. An settlement apparatus as claimed in claim 3, wherein said first communication unit connects to said billing terminal via a commercial telephone line or a private line, and said second communication unit connects to said paying terminal via radio telephone communication.

5. A settlement apparatus as claimed in claim 4, further comprising a billing terminal database which stores information about said billing terminal, wherein:

said processing unit retrieves information about said billing terminal from said billing terminal database so that said billing terminal confirms said paying terminal,

said second communication unit transmits to said paying terminal said information about said billing terminal in addition to said transaction identifying number for identifying said transaction, and

when said paying terminal confirms said information about said billing terminal, and transmits said transaction identifying number to said settlement apparatus, said processing unit synchronizes the communication to said billing terminal with the communication to said paying terminal, and said first communication unit transmits a synchronization confirmation signal which indicates establishment of synchronization with said billing terminal.

6. A settlement apparatus as claimed in claim 5, wherein said

second communication unit transmits to said paying terminal said information about said billing terminal and said transaction identifying number being attached to an internet link address, a user of said paying terminal accesses said link address so that said information about said billing terminal and said transaction identifying number are returned from said paying terminal, and said processing unit synchronizes said billing terminal identified by said information about said billing terminal with the communication to said paying terminal.

7. A settlement apparatus as claimed in claim 5, wherein said processing unit processes said settlement of transaction between said billing terminal and said paying terminal, both of which are synchronized each other by said transaction identifying number.

8. A settlement apparatus as claimed in claim 7, wherein said first communication unit receives a purchase amount of said transaction from said billing terminal, and said processing unit processes said settlement of transaction for a user of said paying terminal based on said purchase amount that said first communication unit receives from said billing terminal.

9. A settlement apparatus as claimed in claim 7, wherein:

said first communication unit receives a purchase amount of said transaction from said billing terminal,

said second communication unit transmits said purchase amount to said paying terminal so that said paying terminal confirms said purchase amount, and receives a final purchase confirmation signal to confirm purchase amount said from said paying terminal,

said processing unit performs a settlement processing after said second communication unit receives said final purchase confirmation signal from said paying terminal,

said first communication unit transmits a settlement completion notification, which notifies completion of said

settlement processing performed by said processing unit to said billing terminal, and

said second communication unit transmits to said paying terminal a receipt which notifies the receiving of said purchasing amount of said settlement processing by said processing unit.

10. A settlement apparatus as claimed in claim 7, further comprising a billing terminal database storing information about said billing terminal, wherein:

3  
said first communication unit receives an identifying number to identify said billing terminal from said billing terminal, and said processing unit retrieves information about said billing terminal from said billing terminal database and confirms a registration of said billing terminal, based on said identifying number.

11. A settlement apparatus as claimed in claim 10, wherein said second communication unit transmits to said paying terminal said information about said billing terminal, for said paying terminal to confirm said billing terminal, retrieved from said billing terminal database.

12. A settlement apparatus as claimed in claim 7, further comprising a paying terminal database which stores information about said paying terminal, wherein

said second communication unit detects a calling telephone number of said paying terminal,

said processing unit retrieves information about a user of said paying terminal from said paying terminal database based on said calling telephone number, and said processing unit inquires at least one of a registration status of said user, a payment history of said user, and available amount of said user.

13. A settlement apparatus as claimed in claim 12, wherein said

processing unit retrieves at least a part of attribute information of said user of said paying terminal from said paying terminal database, and said first communication unit transmits to said billing terminal at least a part of said attribute information of said user of said paying terminal.

14. A settlement apparatus as claimed in claim 12, wherein when said second communication unit receives a message which demands a purchase history of said user of said paying terminal, said processing unit retrieves said purchase history of said user from said paying terminal database, and said second communication unit transmits said purchase history to said paying terminal.

15. A settlement apparatus as claimed in claim 7, wherein said first communication unit receives from said billing terminal an item ordering information which is for a user of said paying terminal to input an order of an item,

said second communication unit transmits said item ordering information to said paying terminal, and

when said paying terminal transmits an order of item, inputted by said user of said paying terminal based on said item ordering information, to the settlement apparatus, said first communication unit transmits said order of item to said billing terminal.

16. A settlement apparatus as claimed in claim 5, further comprising a voice database which stores user voice data of said paying terminal, wherein:

said second communication unit transmits a message which prompts said paying terminal to input user voice and receives said user voice from said paying terminal, and

said processing unit, by inquiring said voice of said user using said voice database, authenticates said user.

17. A settlement apparatus as claimed in claim 5, wherein the settlement apparatus authenticates said user, by said processing unit retrieving authentication information registered by said user of said paying terminal from said paying terminal database,

said second communication unit transmits an instruction which inquires said authentication information to said paying terminal, and said paying terminal receives an answer inputted corresponding to said instruction from said paying terminal, and

said processing unit inquires said answer received from said paying terminal to said authentication information retrieved from said paying terminal database.

18. A settlement apparatus as claimed in claim 17, wherein said paying terminal database stores a plurality of authentication information registered by said user, and said processing unit selects at least one of said plurality of authentication information from said paying terminal database at random.

19. A settlement apparatus as claimed in claim 17, wherein:  
said authentication information registered by said user of said paying terminal, which said processing unit retrieves from said paying terminal database, is at least one of a password of said user, voice data spoken from said user, a face image data of said user, a image data of iris or retina of said user, and an image data of finger print of said user, and

said answer said processing unit receiving from said paying terminal in order to inquire with said authentication information is at least one of character data, voice data, and image data.

20. A billing terminal, communicating with a settlement apparatus which performs a settlement of transaction, for performing billing of said transaction, with a paying terminal which performs paying of said transaction, the billing terminal comprising:

a communication unit which connects to said settlement

apparatus via a telecommunication network, said communication unit transmitting an identifying number to identify the billing terminal to said settlement apparatus, and said communication unit receiving a synchronization confirmation signal indicating an establishment of synchronization with said paying terminal from said settlement apparatus; and

a processing unit which performs billing processing of said transaction.

21. A billing apparatus as claimed in claim 20, wherein said communication unit connects to said settlement apparatus by one of a commercial telephone line, a private line, and a radiotelephone communication.

22. A billing apparatus as claimed in claim 21, wherein in case that said communication unit receives said synchronization confirmation signal, which indicates establishment of synchronization with said paying terminal, from said settlement apparatus, said communication unit performs processing of said settlement of transaction to said paying terminal which is synchronized with said billing apparatus.

23. A billing apparatus as claimed in claim 22, wherein in case that said communication unit transmits a purchase amount of said transaction to said settlement apparatus and said settlement apparatus performs said settlement of transaction to a user of said paying terminal which is synchronized with, said communication unit receives a settlement completion notification which notifies a completion of said settlement processing from said settlement apparatus.

24. A billing apparatus as claimed in claim 23, wherein said communication unit transmits an order information of the item, which prompts a user of said paying terminal to input

an order of an item to said settlement apparatus, and receives the order inputted by said user of said paying terminal based on said order information from said settlement apparatus,

said processing unit calculates said purchase amount based on said order, and

said communication unit transmits said purchase amount calculated by said processing unit to said settlement apparatus, and receives a settlement completion notification which notifies a completion of the settlement process from said settlement apparatus.

25. A billing apparatus as claimed in claim 23, wherein in case that said user of said paying terminal orders an item to an order receiving center which accepts the order of the item and said communication unit receives said order of said user from said order receiving center, said processing unit calculates said purchase amount based on said order, and said communication unit transmits said purchase amount calculated by said processing unit to said settlement apparatus and receives a settlement completion notification which notify a completion of the settlement process from said settlement apparatus.

26. A billing apparatus as claimed in claim 23, wherein said communication unit receives at least a part of attribute information of said user of said paying terminal from said settlement apparatus.

27. A recording medium which stores a program for a computer, communicating to a billing terminal performing billing of a transaction with to a paying terminal performing paying of said transaction, and performing said settlement of transaction, said program comprising:

a first communication module which operates said computer to communicate to said billing terminal via a commercial telephone



line or a private line;

a second communication module which operates said computer to communicate to said paying terminal via a radio telephone communication; and

a processing module which performs said settlement of transaction, wherein

said processing module sets a transaction identifying number which identifies said transaction and said processing module synchronizes a communication to said billing terminal with a communication to said paying terminal when said paying terminal transmits a transaction identifying number which is the same as said transaction identifying number to the settlement apparatus.

28. A method of settlement using a settlement apparatus which performs said settlement of transaction while communicating to a billing terminal which performs billing of a transaction with to a paying terminal which performs paying of said transaction, comprising steps of:

establishing communication to said billing terminal based on information identifying said billing terminal, and setting a transaction identifying number to identify an order transaction of an item, when said paying terminal transmits said information identifying said billing terminal to said settlement apparatus for ordering said item;

transmitting information about said billing terminal with said transaction identifying number to said paying terminal;

synchronizing a communication to said billing terminal with a communication to said paying terminal when said paying terminal confirms said information about said billing terminal and transmits said transaction identifying number to said settlement apparatus;

transmitting a synchronization confirmation signal which indicates that the synchronization is established with said billing terminal;

receiving said order of the item from said paying terminal;

transmitting said order of the item received from said paying terminal to said billing terminal;

receiving a purchase amount based on said order of said item from said billing terminal; and

performing a process of settlement of said transaction between said billing terminal and said paying terminal, both of which are synchronized each other by said transaction identifying number, based on said purchase amount.

29. A settlement method using a settlement apparatus performing a settlement of a transaction for communicating to a billing terminal performing billing of said transaction with to a paying terminal performing paying of said transaction, comprising steps of:

establishing communication to said billing terminal and setting a transaction identifying number to identify said transaction of order of an item, when said user of the paying terminal orders said item to a order receiving center accepting said order of said item and said billing terminal receives said order of said item ordered by said user from said order receiving center and transmits information identifying said billing terminal to said settlement apparatus;

transmitting information about said billing terminal with said transaction identifying number to said paying terminal;

synchronizing a communication to said billing terminal with a communication to said paying terminal, when said paying terminal confirms said information about said billing terminal and transmits said transaction identifying number to said settlement apparatus;

transmitting a synchronization confirmation signal indicating the establishment of synchronization with said billing terminal;

receiving a purchase amount based on said order of said item from said billing terminal; and

processing settlement of said transaction between said

03  
billing terminal and said paying terminal, both of which are  
synchronized each other by said transaction identifying number,  
based on said purchase amount.